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HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER

WANG, JIN CHENG

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 12/17/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/982,481

Applicant(s)

HAO ET AL.

Examiner

Jin-Cheng Wang

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Response to Amendment**

1. The amendment filed on 10/03/2003 has been entered. Claims 1, 3, 4, 5, 11, 13-15, 21, and 23-25 have been amended. Claims 31-32 have been newly added.

### ***Specification***

2. The disclosure is objected to because of the following informalities: On line 3 of the claim 32, "each cart" should be "each chart".
3. The applicant or their representatives are urged to review the specification and submit corrections for all mistakes of a grammatical, clerical, or typographical nature.

### ***Claim Objections***

4. Claim 32 is objected to because of the following informalities: On line 3 of the claim 32, "each cart" should be "each chart". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Tabei et al. U.S. Pat. No. 5,929,863 (hereinafter Tabei).

Art Unit: 2672

7. Claim 1:

Tablei teaches a method for arranging data, said method comprising:

Receiving said data comprising a plurality of records (column 3), each said record having a plurality of attributes (e.g., figure 3, 5, 11 and 12; column 8 and 10; a plurality of attributes for the first graph, the second graph in the same distribution graph);

Determining a set of attributes selected from said plurality of attributes, said set of attributes (e.g., the plot colors; see column 8 and 10) for placement of said plurality of records (data records for database or files; see column 3) in a graphically displayable array (figure 3, 5, 11 and 12), said graphically displayable array comprising a plurality of adjacent data points (figure 3, 5, 11 and 12), each said data point representing one record of said plurality of records (e.g., figure 3, 5, 11 and 12; column 10, lines 4-67; column 11, lines 1-22);

Arranging said plurality of records to construct said graphically displayable array so that each of said adjacent data points is assigned a record (e.g., figure 3, 5, 11 and 12; column 10, lines 4-67; column 11, lines 1-22).

Claim 2:

The claim 2 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of said set attributes comprising at least one dividing attribute, a first ordering attribute corresponding to a first axis, a second ordering attribute corresponding to a second axis, and a visual indicator attribute corresponding to a visual indicator.

Art Unit: 2672

However, Tabei further discloses the claimed limitation of said set attributes comprising at least one dividing attribute, a first ordering attribute corresponding to a first axis, a second ordering attribute corresponding to a second axis, and a visual indicator attribute corresponding to a visual indicator (e.g., figures 11 and 12; column 10, lines 4-67; column 11, lines 1-22).

Claim 3:

The claim 3 encompasses the same scope of invention as that of claim 2 except additional claimed limitation that said step c) comprises sorting said plurality of records by a first dividing attribute, said first dividing attribute corresponding to said first axis, and partitioning said plurality of records into groups according to said first dividing attribute.

However, Tabei further discloses the claimed limitation of that said step c) comprises sorting said plurality of records by a first dividing attribute, said first dividing attribute corresponding to said first axis, and partitioning said plurality of records into groups according to said first dividing attribute (e.g., figures 11 and 12; column 10, lines 4-67; column 11, lines 1-22).

Claim 4:

The claim 4 encompasses the same scope of invention as that of claim 3 except additional claimed limitation of sorting said records of each said group according to said first ordering attribute and said second ordering attribute; and applying said visual indicator to each of said plurality of records according to said visual indicator attribute.

However, Tabei further discloses the claimed limitation of sorting said records of each said group according to said first ordering attribute and said second ordering attribute; and

Art Unit: 2672

applying said visual indicator to each of said plurality of records according to said visual indicator attribute (e.g., figures 11 and 12; column 10, lines 4-67; column 11, lines 1-22).

Claim 5:

The claim 5 encompasses the same scope of invention as that of claim 3 except additional claimed limitation of sorting said records of each of said groups according to a second dividing attribute, said second dividing attribute corresponding to said second axis, and portioning said records of each of said groups into sub-groups according to said second dividing attribute; sorting said records of each said sub-group according to said first ordering attribute and said second ordering attribute; and applying said visual indicator to each of said plurality of records according to said visual indicator attribute.

However, Tabei further discloses the claimed limitation of sorting said records of each of said groups according to a second dividing attribute, said second dividing attribute corresponding to said second axis, and portioning said records of each of said groups into sub-groups according to said second dividing attribute; sorting said records of each said sub-group according to said first ordering attribute and said second ordering attribute; and applying said visual indicator to each of said plurality of records according to said visual indicator attribute (e.g., figures 11 and 12; column 10, lines 4-67; column 11, lines 1-22).

Claim 6:

The claim 6 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of each said data point being represented by a pixel on a display.

However, Tabei further discloses the claimed limitation of each said data point being represented by a pixel on a display (e.g., figure 12).

Art Unit: 2672

Claim 7:

The claim 7 encompasses the same scope of invention as that of claim 2 except additional claimed limitation of said first axis being a horizontal axis.

However, Tabei further discloses the claimed limitation of said first axis being a horizontal axis (e.g., figure 12).

Claim 8:

The claim 8 encompasses the same scope of invention as that of claim 2 except additional claimed limitation of said second axis being a vertical axis.

However, Tabei further discloses the claimed limitation of said second axis being a vertical axis (e.g. figure 12).

Claim 9:

The claim 9 encompasses the same scope of invention as that of claim 2 except additional claimed limitation of said visual indicator being a color.

However, Tabei further discloses the claimed limitation of said visual indicator being a color (e.g., figure 12).

Claim 10:

The claim 10 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of said graphically displayable array being a pixel bar chart.

However, Tabei further discloses the claimed limitation of said graphically displayable array being a pixel bar chart (e.g., the distribution chart of figure 12).

Art Unit: 2672

8. Claim 11-20:

The claim 11-20 encompasses the same scope of invention as that of claims 1-10 except additional claimed limitation of a computer system comprising a bus, a display device coupled to said bus; a computer-readable memory coupled to said bus; and a processor coupled to said bus, said processor for executing a method for arranging data. However, Tabei further discloses the claimed limitation of a computer system comprising a bus, a display device coupled to said bus; a computer-readable memory coupled to said bus; and a processor coupled to said bus, said processor for executing a method for arranging data (e.g., figures 1 and 6).

9. Claim 21-30:

The claim 21-30 respectively encompasses the same scope of invention as that of claims 1-10 except additional claimed limitation of a computer-readable medium having computer-readable program code embodied therein for causing a computer system to perform a method for arraying data. However, Tabei further discloses the claimed limitation of a computer-readable medium having computer-readable program code embodied therein for causing a computer system to perform a method for arraying data (e.g., figures 1, 2 and 6; column 4, lines 5-10).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



Art Unit: 2672

11. Claims 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tabei et al. U.S. Patent No. 5,929,863.

12. Claim 31:

The claim 31 recites the claimed limitation of “determining a width of each of the columns, the width of some columns being different than the width of other columns, assigning records to every pixel in said columns, and applying a variable color to all of the pixels in all of the columns according to an attribute of said records.”

Tabei teaches determining a width of each of the columns (display range designation; column 3), assigning records to every pixel in said columns (figure 3, 5, 11 and 12), and applying a variable color to all of the pixels in all of the columns (column 8) according to an attribute of said records (e.g., figure 3, 5, 11 and 12; column 10, lines 4-67; column 11, lines 1-22).

However, it is not clear Tabei discloses a variable width column in a distribution chart.

Tabei suggests a variable width column because Tabei teaches determining a minimum and maximum values and item data ranges for the x-axis and y-axis wherein the item data ranges are variably selected (column 3).

It would have been obvious to one of ordinary skill in the art to have incorporated the variable width column into the Tabei's invention to provide a variable width column for the different ranges of data records to be placed in the distribution charts.

13. Claim 32:

Art Unit: 2672

The claim 32 encompasses the same scope of invention as that of claim 31 except additional claimed limitation of “forming a plurality of pixel bar charts, each chart comprising a plurality of variable width columns, each column containing a variable number of pixels; assigning a record to a commonly located pixel in each chart; and applying a variable color to the pixels in each chart according to an attribute of said records, said attribute being different among the charts.”

Tabei teaches forming a plurality of pixel bar charts (column 6), each chart comprising a plurality of columns (figures 3, 5, 11 and 12), each column containing a variable number of pixels (figures 3, 5, 11 and 12); assigning a record to a commonly located pixel in each chart (column 3); and applying a variable color to the pixels in each chart according to an attribute of said records (column 8), said attribute being different among the charts (e.g., figure 3, 5, 11 and 12; column 10, lines 4-67; column 11, lines 1-22).

However, it is not clear Tabei discloses a variable width column in a distribution chart.

Tabei suggests a variable width column because Tabei teaches determining a minimum and maximum values and item data ranges for the x-axis and y-axis wherein the item data ranges are variably selected (column 3).

It would have been obvious to one of ordinary skill in the art to have incorporated the variable width column into the Tabei's invention to provide a variable width column for the different ranges of data records to be placed in the distribution charts.

***Remarks***

Art Unit: 2672

14. Applicant's arguments, filed 10/03/2003, paper number 6, have been fully considered but they are not deemed to be persuasive.

15. Applicant argues in essence with respect to the amended claim 1 and similar claims that: "Claim 1 comprises, among other features, a 'graphically displayable array comprising a plurality of adjacent data points' and 'arranging said plurality of records to construct said graphically displayable array so that each of said adjacent data points is assigned a record.' Tabei does not teach or suggest a plurality of adjacent data points in which each data point is assigned a record. Instead, in Tabei less than all of the possible data points in Figure 4 have assigned sales records. Thus, Tabei does not anticipate nor render obvious the invention of claim 1 and dependent claims 2-20."

This is not found persuasive because Tabei teaches the claim limitation of a graphically displayable array (See Figure 5, 11 and 12) comprising a plurality of adjacent data points (e.g., figure 3, 5, 11 and 12; column 10, lines 4-67; column 11, lines 1-22) and arranging said plurality of records to construct said graphically displayable array so that each of said adjacent data points is assigned a record (e.g., figure 3, 5, 11 and 12; column 10, lines 4-67; column 11, lines 1-22). Tabei clearly teaches a graphically displayable array of data records extracted/retrieved from the database or database files under variable conditions, e.g., the data ranges, comprising a plurality of adjacent data records plotted as data points in the distribution graph. Tabei further teaches arranging (such as selecting/extracting/retrieving the data records from the database for a retrieval range to construct the array to be displayed in a distribution graph) the plurality of data records (data records associated with the retrieval range) to construct the graphically displayable array so that each of the adjacent data points (adjacent data points plotted in the distribution

Art Unit: 2672

graph of figure 11 and 11 for the retrieved data records) is assigned a record (each data record is associated with each data point on the distribution graph).

Therefore, Tabei fulfills the amended claim 1 as currently drafted.

### *Conclusion*

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (703) 605-1213. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (703) 305-4713. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-6606 for regular communications and (703) 308-6606 for After Final communications.

Art Unit: 2672

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 395-3900.

jcw  
December 10, 2003



MICHAEL RAZAVI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600